

CI / CD

SonarQube 7.9.1 + Jenkins

- 支援多種程式語言 (C, Java, Go.....)
- 檢測安全性、可靠性、重覆性、技術債務、測試覆蓋率等
- 提供問題資訊以及程式碼改善建議
- 具驗證機制，可整合 Github、Gitlab、LDAP、AD 等
- 可方便的升級系統與安裝外掛套件

支援多種程式語言

▼ Language

Java	547
Python	439
C#	367
JavaScript	216
PHP	181
VB.NET	138
TypeScript	129
Flex	81
HTML	62
Kotlin	49
Ruby	48
Scala	47
Go	46
CSS	30
XML	16
JSP	6

"!important" should not be used on "keyframes"	CSS	🚩 Bug	▼
"\$this" should not be used in a static context	PHP	🚩 Bug	▼
"&&" and " " should be used	PHP	🚩 Code Smell 🚩 suspicious	▼
".equals()" should not be used to test the values of "Atomic" classes	Java	🚩 Bug 🚩 multi-threading	▼
"<!DOCTYPE>" declarations should appear before "<html>" tags	HTML	🚩 Bug 🚩 user-experience	▼
"<>" should not be used to test inequality	Python	🚩 Code Smell 🚩 obsolete	▼
"<?php" and "<?=" tags should be used	PHP	🚩 Code Smell 🚩 convention, psr1	▼
"<fieldset>" tags should contain a "<legend>"	HTML	🚩 Bug 🚩 accessibility	▼
"<frames>" should have a "title" attribute	HTML	🚩 Bug 🚩 accessibility	▼
"" and "<dt>" item tags should be in "", "" or "<dl>" container tags	HTML	🚩 Bug	▼
"" and "" tags should be used	HTML	🚩 Bug 🚩 accessibility	▼
"<table>" tags should contain a "<caption>"	HTML	🚩 Bug 🚩 accessibility	▼
"<th>" tags should have "id" or "scope" attributes	HTML	🚩 Code Smell 🚩 accessibility	▼
"<title>" should be present in all pages	HTML	🚩 Bug 🚩 user-experience	▼
"=+" should not be used instead of "+="	C#	🚩 Bug	▼
"=+" should not be used instead of "+="	VB.NET	🚩 Bug	▼

檢測安全性、可靠性、重覆性、技術債務、測試覆蓋率

☆ afointernetradio Passed	Last analysis: August 13, 2019, 2:54 PM				
0 A 🐛 Bugs	0 A 🔒 Vulnerabilities	10 A 💩 Code Smells	0.0% Coverage	0.0% Duplications	1.7k S Kotlin, XML
☆ api Passed	Last analysis: August 13, 2019, 3:05 PM				
8 E 🐛 Bugs	4 B 🔒 Vulnerabilities	64 A 💩 Code Smells	0.0% Coverage	0.0% Duplications	1k S Java, XML
☆ tutorial Passed	Last analysis: August 13, 2019, 2:56 PM				
0 A 🐛 Bugs	0 A 🔒 Vulnerabilities	4 A 💩 Code Smells	0.0% Coverage	5.5% Duplications	465 XS XML, Java, ...
☆ update Passed	Last analysis: August 13, 2019, 3:03 PM				
9 E 🐛 Bugs	26 E 🔒 Vulnerabilities	182 A 💩 Code Smells	0.0% Coverage	0.0% Duplications	3.5k S Java, XML

提供問題資訊以及程式碼改善建議

app/.../main/java/com/qnap/afoupdate/FileExplore.java

☐

Remove this conditional structure or edit its code blocks so that they're not all the same. [See Rule](#)

3 months ago ▾ L113 🔗 🔍 ▾

Bug ▾ Major ▾ Open ▾ Not assigned ▾ 15min effort [Comment](#)

No tags ▾

☐

Introduce a new variable instead of reusing the parameter "convertView". [See Rule](#)

3 months ago ▾ L269 🔗 🔍 ▾

Bug ▾ Minor ▾ Open ▾ Not assigned ▾ 5min effort [Comment](#)

based-on-misra ▾

app/.../main/java/com/qnap/afoupdate/RouteAdapter.java

☐

A "NullPointerException" could be thrown; "fList" is nullable here. [See Rule](#)

3 months ago ▾ L160 🔗 🔍 ▾

Bug ▾ Major ▾ Open ▾ Not assigned ▾ 10min effort [Comment](#)

cert, cwe ▾

app/.../com/qnap/afoupdate/service/UpdateService.java

☐

Either re-interrupt this method or rethrow the "InterruptedException". [See Rule](#)

3 months ago ▾ L743 🔗 🔍 ▾

Bug ▾ Major ▾ Open ▾ Not assigned ▾ 15min effort [Comment](#)

cwe, error-handling, multi-threading ▾

← 6 / 9 Issues ↻

app/.../afoupdate/service/UpdateService.java

Either re-interrupt this method or rethrow the "InterruptedException".

Bug

Use try-with-resources or close this "FileReader" in a "finally" clause.

Bug

Use try-with-resources or close this "BufferedReader" in a "finally" clause.

Bug

```
809     beck...
810         Log.d(TAG, "Live update");
811         FileReader fileReader = null;
812         if (updateFile.exists()) {
            fileReader = new FileReader(storagePath);
```

Use try-with-resources or close this "FileReader" in a "finally" clause. See Rule

23 hours ago ▾ L812 🔗

🐞 Bug ▾ 🚫 Blocker ▾ 🔵 Open ▾ Not assigned ▾ 5min effort Comment

🔗 cert, cwe, denial-of-service, leak ▾

```
813     will...
814     will...
            }
            BufferedReader bufferedReader = new BufferedReader(fileReader);
```

Use try-with-resources or close this "BufferedReader" in a "finally" clause. See Rule

3 months ago ▾ L814 🔗

🐞 Bug ▾ 🚫 Blocker ▾ 🔵 Open ▾ Not assigned ▾ 5min effort Comment

🔗 cert, cwe, denial-of-service, leak ▾

```
815         String readText = "";
816         String textLine = bufferedReader.readLine();
```

💡 Resources should be closed

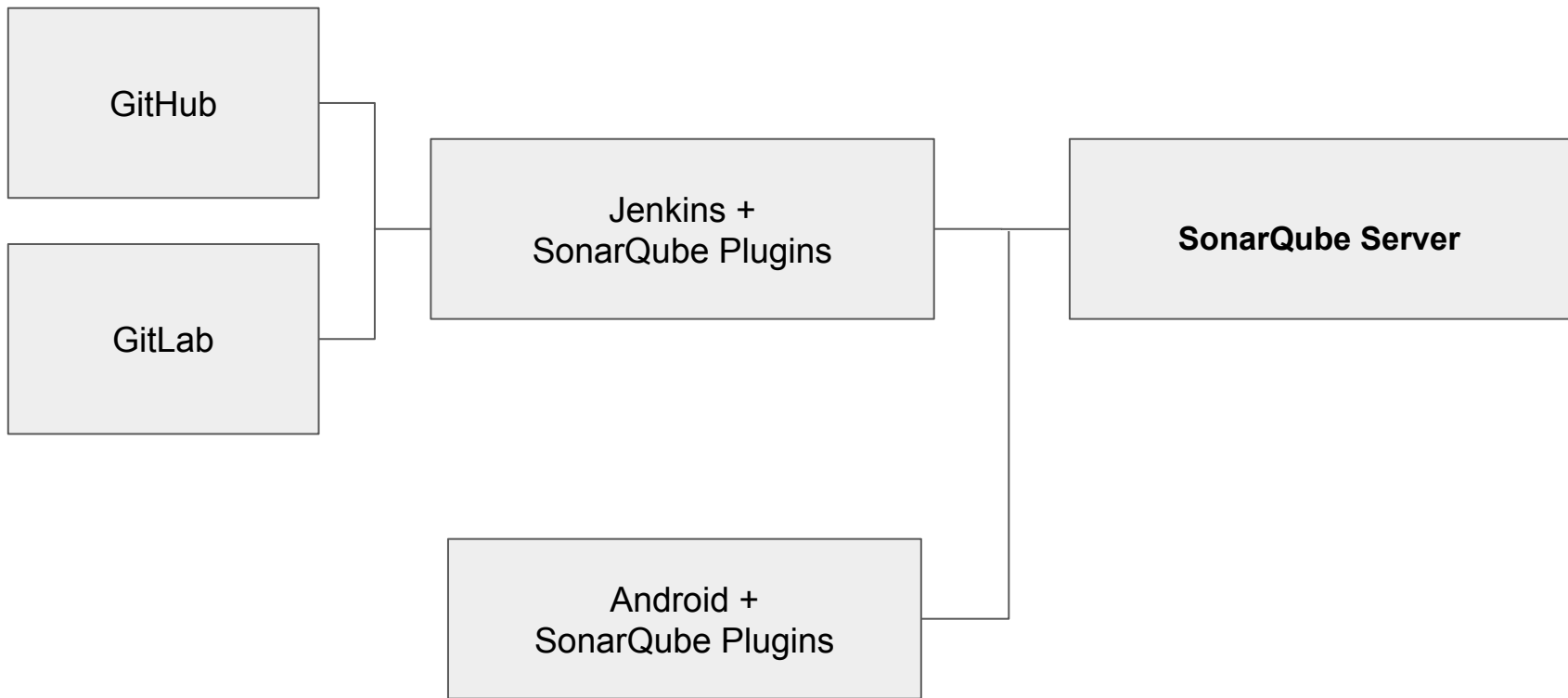
Failure to properly close resources will result in a resource leak which could bring down the application and then perhaps the box it's on to their knees.

Noncompliant Code Example

```
private void readTheFile() throws IOException {
    Path path = Paths.get(this.fileName);
    BufferedReader reader = Files.newBufferedReader(path, this.charset);
    // ...
    reader.close(); // Noncompliant
    // ...
    Files.lines("input.txt").forEach(System.out::println); // Noncompliant: The stream needs to be closed
}
```

```
private void doSomething() {
    OutputStream stream = null;
    try {
```

架構



SonarQube 環境安裝

```
docker pull sonarqube
```

```
docker run -d --name sonarqube -p 9000:9000 sonarqube
```

URL: `http://${IP_Address}:9000`

Jenkins 環境安裝

```
docker pull jenkins/jenkins
```

```
docker pull jenkins/jenkins:lts
```

```
docker run -p 8080:8080 -p 50000:50000 jenkins/jenkins
```

Jenkins 環境設定 (1)

1. 安裝 Plugin : Manage Jenkins -> Manage Plugins -> Available -> 選擇 “SonarQube Scanner for Jenkins” -> 選擇 “Install without restart”

2. 設定SonarQube : Manage Jenkins -> Configure System

SonarQube servers

Environment variables

☒ Enable injection of SonarQube server configuration as build environment variables

If checked, job administrators will be able to inject a SonarQube server configuration as environment variables in the build.

SonarQube installations

Name

SonarQube servers

Server URL

http://192.168.1.10:9000

Default is http://localhost:9000

Server authentication token

- none -

Add

SonarQube authentication token. Mandatory when anonymous access is disabled.

Advanced...

Delete SonarQube

Add SonarQube

Jenkins 環境設定 (2)

3. 啟用 SonarQube : Manage Jenkins -> Global Tool Configuration

SonarQube Scanner

SonarQube Scanner installations

Add SonarQube Scanner



SonarQube Scanner

Name

SonarQube Scanner



Install automatically



Install from Maven Central

Version

SonarQube Scanner 4.0.0.1744 ▼

Delete Installer

Add Installer ▼

Delete SonarQube Scanner

Add SonarQube Scanner

List of SonarQube Scanner installations on this system

Jenkins 環境設定 (3)

4. Project 設定 :

Additional arguments

JVM Options

Add build step ▾

Execute SonarQube Scanner

Execute Windows batch command

Execute shell

Invoke Ant

Invoke Gradle script

Invoke top-level Maven targets

Run with timeout

Set build status to "pending" on GitHub commit

SonarScanner for MSBuild - Begin Analysis

SonarScanner for MSBuild - End Analysis

Build

Execute SonarQube Scanner

Task to run

JDK

(Inherit From Job)

JDK to be used for this SonarQube analysis

Path to project properties

Analysis properties

```
sonar.projectName=update  
sonar.projectKey=update  
sonar.sources=.  
sonar.java.binaries=.
```

Additional arguments

JVM Options

Add build step ▾